Amendments to the Specification:

Please replace the first four paragraphs of the following section <u>DETAILED DESCRIPTION OF THE INVENTION</u>, starting on page 5 and ending on page 6, with the following three amended paragraphs:

DETAILED DESCRIPTION OF THE INVENTION

In the preferred embodiment of the invention, the backbone network will consist of LOBS nodes, including edge (both ingress and egress) LOBS nodes and core LOBS nodes. A LOBS node (showing both edge and core nodes) is shown in Drawing 1. Referring to Drawing 1, the access point (AP) interface (1), burst assembly/disassembly units (2) and LOBS data add/drop functions (3), are needed for edge LOBS nodes only. These are optional for core LOBS nodes. (In Drawing 1, (1), (2) and (3) are collectively grouped as being optional (4) for core LOBS.) FDLs and wavelength conversion capability are optional but preferred at LOBS nodes. LOBS nodes are interconnected with WDM links, each of which contains one or more control wavelengths (5), and one or more data wavelengths (6).

At the access point, PDU devices ~~(5)~~ (7) will be attached to an edge LOBS node. PDUs from these devices are assembled into "bursts" at an ingress LOBS node, and then delivered, in an optical burst switched mode, to an egress LOBS node without going through an Optical/Electrical/Optical (O/E/O) conversion at intermediate (i.e., core) LOBS nodes. The egress LOBS node then disassembles each burst and forwards PDUs to appropriate PDU devices

Turning to the AP interface between PDU devices and LOBS nodes ~~(6)~~ (8): The traffic coming out of PDU devices are likely to be streams of packets (most probably IP packets) carrying various labels, where each label is associated with a specific class of service, and a specific LSP destined to a specific egress LSR attached to an egress LOBS node.

In the preferred embodiment, the interface unit, see Drawing 2, will contain multiple burst assembly (BA) and burst disassembly (BD) buffers, (1) and (2) respectively, one for each egress LOBS node. Each BA buffer is, at least logically, divided into multiple queues (3), one for each Class of Service with specific delay, loss probability and other Quality of Service (QoS) parameters. See Drawing 2. A major function of the interface unit is to map PDUs to a corresponding BA buffer, where the PDUs are to be assembled into bursts that will be sent on one or more LOBS paths. Multiple LSPs may be mapped onto the same LOBS path (i.e., aggregated), provided that these LSPs are all destined to the same egress LOBS node (but possibly different egress PDU devices such as electronic LSRs attached to the egress LOBS node), and the LOBS path provides compatible (or better) services than required by these LSPs.